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TITLE: Method for manufacturing capacitor using atomic layer  
deposition

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PATENT-ASSIGNEE: HYNIX SEMICONDUCTOR INC[HYNIN]

PRIORITY-DATA: 2000KR-0076627 (December 14, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
KR 384851 B	May 22, 2003	N/A	000	H01L 027/108
KR 2002046433 A	June 21, 2002	N/A	001	H01L 027/108

## APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
KR 384851B	N/A	2000KR-0076627	December 14, 2000
KR 384851B	Previous Publ.	KR2002046433	N/A
KR2002046433A	N/A	2000KR-0076627	December 14, 2000

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ABSTRACTED-PUB-NO: KR2002046433A

BASIC-ABSTRACT:

**NOVELTY** - A fabrication method of a **capacitor** is provided to improve quality and electrical properties by using an ALD(Atomic Layer Deposition) and an ammonia plasma treatment.

**DETAILED DESCRIPTION** - A lower electrode(21) and a **barrier** metal(22) are sequentially formed on a semiconductor substrate(20). A TaON dielectric film(23) is then formed on the **barrier** metal. A TiN upper electrode(24) is formed on the TaON dielectric film(23) by an **ALD** using  $TiCl_4$  as a source gas. The surface of the TaN upper electrode(24) is performed by  $NH_3$  plasma treatment so as to remove Cl radicals.

**CHOSEN-DRAWING:** Dwg.1/10

**TITLE-TERMS:** METHOD MANUFACTURE **CAPACITOR** ATOMIC LAYER DEPOSIT

**DERWENT-CLASS:** L03 U11 U14

**CPI-CODES:** L03-G04A; L04-C11C2; L04-C12B; L04-C14A;

**EPI-CODES:** U11-C05G1B; U14-A03B4;

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$\text{NH}_3$  플라즈마

